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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,024	11/20/2000	Jukka Alve	4925-80	9643

7590 01/13/2005

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EXAMINER

KIM, JUNG W

ART UNIT PAPER NUMBER

2132

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/718,024		ALVE ET AL.	
	Examiner		Art Unit	
	Jung W Kim		2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-8, 10-20 and 22-34 is/are rejected.
- 7) ☐ Claim(s) 9 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-34 have been examined. Applicant in the amendment filed on November 10, 2004 amended claims 1, 6, 10, 13, 22, 24, 25, 28 and 31.

Response to Amendment

2. The objection to the disclosure is withdrawn as the amendment overcomes the objection.

3. The objection to claim 24 is withdrawn as the amendment overcomes the objection.

4. The 112, 2nd paragraph rejection to claim 6 is withdrawn as the amendment overcomes the rejection.

5. The 112, 2nd paragraph rejections to claims 10-12 and 22-30 for omitting essential structural elements are withdrawn as the amendments overcome the rejections; however, upon further review, claims 10-12 and 22-30 are rejected under this section for omitting additional essential structural elements as outlined below.

Response to Arguments

6. The following is a response to applicants arguments on pgs. 12-19 in the amendment filed on November 10, 2004.

7. The 112, 2nd paragraph rejections to claims 10-12 and 22-30 for omitting essential steps are withdrawn as applicant's argument is persuasive (see amendment, pg. 13, 1st paragraph); however, upon further review, claims 10-12 and 22-30 are rejected under this section for omitting additional essential steps as outlined below.

8. Applicant's arguments with respect to the rejection(s) of claim(s) 1-8, 10-20 and 22-34 under 35 U.S.C. 102(b) and 103(e) have been fully considered and are persuasive. Specifically that primary reference Maillard fails to teach or suggest encrypting received packets in the recording and playback device according to an encryption key unique to the recording and playback device as recited in the independent claims (see Remarks, pg. 14, last paragraph). Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sasamoto.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 10-12 and 22-30 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps and essential structural cooperative relationships of elements, such omission amounting to a gap between the steps and structural connections. See MPEP § 2172.01. The omitted steps and structural elements are: a first irrevocable condition comprising a programming ON a first certain

bit of a one-time-programmable ROM, wherein the negation of the ON (i.e. OFF) first certain bit signal applied to an OR gate transmits a OFF signal to a AND gate; a second irrevocable condition comprising a programming ON a second certain bit of a one-time programmable ROM, wherein the ON second certain bit signal applied to the OR gate transmits a ON signal to the AND gate, wherein the request for key is only enabled when the input from the OR gate to the AND gate is an ON signal. These steps are essential to effectively disable the readout path for retrieving the key portion by an IC tester, then to effectively enable the readout path for retrieving the key portion by an IC tester. Finally, these steps are the only irrevocable conditions to disable then enable the readout of the key defined and enabled by the instant specification. See Specification, pg. 13, 2nd paragraph-pg. 14, 1st paragraph and Figure 5.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 2, 13, 14, 31 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasamoto et al. U.S. Patent No. 5,912,969 (hereinafter Sasamoto).

13. As per claim 13, Sasamoto discloses an apparatus for recording and playing back digital data (see Sasamoto, Figure 1), comprising:

- a. a data receiver for receiving packets of a digital data stream (see Sasamoto, Figure 1, Reference No. 200);
- b. an encrypter for encrypting the received packets according to an encryption key unique to the apparatus (see Sasamoto, Figure 1, Reference Nos. 301 and 403); and
- c. a data store for storing the encrypted packets (see Sasamoto, Figure 1, Reference No. 304).

The aforementioned covers claim 13.

14. As per claim 14, Sasamoto discloses an apparatus as outlined above in the claim 13 rejection under 35 U.S.C. 102(b). In addition, the apparatus further comprises:

- d. a decrypter for retrieving and decrypting the encrypted packets according to the encryption key unique to the apparatus (see Sasamoto, Figure 1, Reference No. 305 and 403); and
- e. a data transmitter for passing the decrypted packets to a presentation device (see Sasamoto, Figure 1, Reference Nos. 200 and 3);
- f. whereby a copy of the encrypted packets will not play back intelligibly using a different apparatus; whereby the encrypted packets are protected against unauthorized distribution (see Sasamoto, Figure 1, Reference Nos. 305, 403; col. 3:44-50).

The aforementioned covers claim 14.

15. As per claims 1 and 2, they are method claims corresponding to claims 13 and 14, and they do not teach or define above the information claimed in claims 13 and 14. Therefore, claims 1 and 2 are rejected as being anticipated by Sasamoto for the same reasons set forth in the rejections of claims 13 and 14.

16. As per claims 31 and 32, Sasamoto discloses an apparatus as outlined above in the claim 13 and 14 rejections. In addition, the apparatus is a set-top box. See Sasamoto, Figure 1, Reference No. 110. The aforementioned cover the limitations of claims 31 and 32.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 3, 4, 6-8, 15, 16, 18-20, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasamoto.

19. As per claims 15 and 16, Sasamoto discloses an apparatus as outlined above in the claim 14 rejection under 35 U.S.C. 102(b). Sasamoto teaches the use of a

encryption key unique to the apparatus wherein the encryption key is formed according to a predetermined algorithm from a first portion and a plurality of second portions, wherein the first and second portions are unique to the device and the first portion is stored in advanced. See Sasamoto, Figure 3, Reference Nos. 403 and 4001; col. 3:44-50. Sasamoto does not expressly teach the first portion stored in permanent storage; however, it is notorious well-known in the art to store unique identifiers of a hardware component such as device serial numbers in permanent storage such as a PROM or ROM. Examiner takes Official Notice of this teaching. It would be obvious to one of ordinary skill in the art at the time the invention was made to store a unique identifier in permanent store since it prevents fraudulent modification of values specific to a device. The aforementioned cover the limitations of claims 15 and 16.

20. As per claims 3 and 4, they are method claims corresponding to claims 15 and 16, and they do not teach or define above the information claimed in claims 15 and 16. Therefore, claims 3 and 4 are rejected as being unpatentable over Sasamoto for the same reasons set forth in the rejections of claims 15 and 16.

21. As per claims 33 and 34, they are apparatus claims corresponding to claims 15, 16 and 31, and they do not teach or define above the information claimed in claims 15, 16 and 31. Therefore, claims 33 and 34 are rejected as being unpatentable over Sasamoto for the same reasons set forth in the rejections of claims 15, 16 and 31.

22. As per claims 18-20, Sasamoto discloses an apparatus as outlined above in the claim 13 and 14 rejections. Sasamoto does not expressly teach storing packet information with the header bytes unencrypted and the payload bytes encrypted; and when stored packets are retrieved, replacing the header bytes and decrypting the payload bytes. However, encryption of digital data is commonly performed wherein the payload of a packet stream is encrypted and the header is not: this encryption approach enables devices reading the encrypted stream to identify meta data of the encrypted information to determine handling of the encrypted stream; further, in these systems, the header data is replaced when the security context changes since the header data identifies the security context of the payload. For example, the IPsec protocol follows these conventions. Examiner takes Official Notice of this teaching. It would be obvious to one of ordinary skill in the art at the time the invention was made to store encrypted data wherein the header bytes are unencrypted and the payload bytes are encrypted; and when stored packets are retrieved, replace the header bytes and decrypt the payload bytes. Motivation to combine enables identification of stored packet information without decrypting the payload as known to one of ordinary skill in the art.

23. As per claims 6-8, they are method claims corresponding to claims 18-20, and they do not teach or define above the information claimed in claims 18-20. Therefore, claims 6-8 are rejected as being unpatentable over Sasamoto for the same reasons set forth in the rejections of claims 18-20.

24. Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasamoto in view of Reardon U.S. Patent No. 6,212,635 (hereinafter Reardon).

25. As per claim 17, Sasamoto covers an apparatus as outlined above in the claim 16 rejection. Sasamoto does not disclose a user interface for receiving a third portion of the encryption key wherein the key logic for forming the encryption key utilizes the third portion according to a predetermined algorithm. Reardon teaches incorporating seed values specific to a user and a computer configuration to uniquely associate the key to a user/device profile wherein the user seed value is received through a user interface and entered by a user, and the device seed value is acquired from the device itself. See Reardon, col. 10, lines 40-59. It would be obvious to one of ordinary skill in the art at the time the invention was made for a third portion to form the encryption key, wherein the user by means of a user interface enters the value unique to the user and the device supplies the values unique to the device. Motivation to combine enables the encryption key to be formed sufficiently unique to a user/device profile. See Reardon, *Ibid*. The aforementioned cover the limitations of claim 17.

26. As per claims 5, it is a method claim corresponding to claims 17, and it does not teach or define above the information claimed in claim 17. Therefore, claim 5 is rejected as being unpatentable over Sasamoto in view of Reardon for the same reasons set forth in the rejection of claim 17.

Allowable Subject Matter

27. Claims 25 and 28 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

28. Claims 10-12, 22-24, 26, 27, 29 and 30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

29. Claims 9 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tagawa et al. U.S. Patent No. 6,834,348.

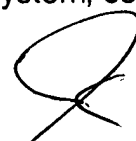
Chou U.S. Patent No. 6,167,136.

Lee U.S. Patent No. 5,636,278.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W Kim whose telephone number is (571) 272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jung W Kim
Examiner
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Jk
January 7, 2005



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